

REMARKS

This Amendment responds to the Office Action mailed October 16, 2007, in the above-identified application. Based on the foregoing amendments and the following comments, reconsideration and allowance of the application are respectfully requested.

Claims 1-12 are pending in the application. By this amendment, claims 1, 2, 5-7 and 10 are amended. Accordingly, claims 1-12 are currently pending, with claims 1 and 10 being independent claims. The amendments to claims 1 and 10 find support in the original application at least at page 6, lines 6-28 and page 7, line 23 to page 11, line 3. The amendment to claim 2 finds support in the original application at least at page 11, lines 19-23. The specification has been amended at page 2 to be consistent with the amended claims. No new matter has been added.

The Examiner has objected to claims 5-9 under 37 C.F.R. §1.75(c) as being in improper form because a multiple dependent claim cannot depend from another multiple dependent claim. Claims 5-7 have been amended to delete multiple dependencies. Accordingly, withdrawal of the rejection is respectfully requested.

The Examiner has rejected claims 1-4 and 10-12 under 35 U.S.C. §103(a) as unpatentable over Bennett (US 3,809,069) in view of Gevins et al. (US 6,434,419). The rejection is respectfully traversed in view of the amended claims.

The Examiner asserts that Bennett shows a method of evaluating the intelligence of a user by providing a stimulus to a user, recording the brain activity of a user while the stimulus is presented, deriving the SSVEP amplitudes from brain activity and comparing the amplitudes to known SSVEP amplitudes to identify the intelligence of the user. Applicant must respectfully disagree. Bennett does not disclose a method for eliciting SSVEP. Instead, Bennett discloses a method whereby a transient visual stimulus (a pulse) is presented a multiple number of times to a subject and an "evoked response" is elicited. Bennett indicates that this evoked response is determined by averaging the individual responses. This is a well-established procedure but does not yield the SSVEP. In fact, Bennett specifically indicates that the frequency of stimulation (to

produce the evoked potential) should be low and not higher than three pulses per second (col. 2, lines 43-53).

In contrast, the stimulus used in the method of the present invention to elicit the SSVEP is a continuous sinusoidal waveform that is typically 13Hz, although the stimulus can vary from 3Hz to 50Hz (Applicant's specification, page 6, lines 11-12). This stimulus range is explicitly excluded by Bennett as it cannot be used to elicit the brain responses described by Bennett. Accordingly, it is submitted that the method of claim 1 and the apparatus of claim 10 are clearly different from the technique disclosed by Bennett.

On page 2 of the Office Action, the Examiner states "The stimulus is not a group of tasks. However, Gevins teaches that it is known to derive a measure of intelligence from SSVEP signals obtained by using a group of tasks as the stimulus. Hence, it would have been obvious to modify Bennett to use the stimulus of Gevins as the stimulus, as it is merely the substitution of one known equivalent stimulus from another." Again, Applicant respectfully disagrees. The Examiner asserts that substituting the stimulus described by Bennett with one or more cognitive tasks as described by Gevins yields an outcome equivalent to that of the present invention. However, the present invention requires two distinct classes of stimuli that must be presented simultaneously. One is the sinusoidal flicker to elicit the SSVEP, and the other is the cognitive task. This is now clearly defined in amended claims 1 and 10. In sharp contrast, both Bennett and Gevins disclose arrangements where there is only a single type of stimulus, either a pulse to elicit an evoked potential (Bennett) or a cognitive task to elicit changes in brain electrical activity (Gevins). For at least these reasons, amended claim 1 is clearly patentable over Bennett in view of Gevins.

Claims 2-9 depend from claim 1 and are patentable over the cited references for at least the same reasons as claim 1.

Amended claim 10 requires means for simultaneously presenting to the subject one of a group of cognitive tasks and a visual flicker, together with means for calculating amplitude, phase and/or coherence of the SSVEP responses elicited by the visual flicker. As discussed

above, neither Bennett nor Gevins discloses or suggests an arrangement which has means for simultaneously presenting to the subject a cognitive task as well as a flicker and means for calculating amplitude, phase and/or coherence of the SSVEP responses elicited by the visual flicker. For these reasons and the reasons discussed above, it is submitted that amended claim 10 is allowable over Bennett in view of Gevins, and withdrawal of the rejection is respectfully requested.

Claims 11 and 12 depend from claim 10 and are patentable over the cited prior art for at least the same reasons as claim 10.

Based upon the above discussion, claims 1-12 are in condition for allowance.

CONCLUSION

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge any deficiency to Deposit Account No. 23/2825.

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Respectfully submitted,

By William R. McClellan
William R. McClellan
Registration No.: 29,409
WOLF, GREENFIELD & SACKS, P.C.
Federal Reserve Plaza
600 Atlantic Avenue
Boston, Massachusetts 02210-2206
617.646.8000